

Web-based Educational Program for Nuclear Industry Personnel: Radiobiology, Radiation Protection, and Risks vs. Benefits

Executive Summary

This proposed web-based training course in radiation biology, radiation protection and risk benefit analysis is conceived and targeted for personnel in the nuclear industry, ranging from health physicists, to nuclear engineers, to administrators. We perceive this web-based program to be responding to a significant need since, while a small proportion of nuclear industry personnel may have access to a lecture course in radiation biology, the majority do not. The basic plan is to use the web-based teaching site to present 14 topics, covering all relevant aspects of radiobiology, radiation protection, and risks vs. benefits. Within each topic there will be a review of the pertinent material and four review questions referring to this material. This course will provide a comprehensive summary of the biological effects of ionizing radiations relevant to the nuclear industry. Finally, we propose enhancing the web-based material through podcasting, which we have done with some success for our one-day training courses regarding responding to a radiological terrorist event (www.cmcr.columbia.edu/podcasts).